



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,038	07/19/2001	Dorit Wolf	3975.003	8471
41288	7590	05/12/2005	EXAMINER	
PENDORF & CUTLIFF 5111 MEMORIAL HIGHWAY TAMPA, FL 33634-7356			ZHOU, SHUBO	
		ART UNIT		PAPER NUMBER
				1631

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/909,038	WOLF ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shubo (Joe) Zhou	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 18 February 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 10-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 10-17 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 September 2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> .

Continuation of Attachment(s) 6). Other: copy of the Advisory action mailed 8/6/04.

**DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 8, 2004 has been entered.

The amendment filed 7/9/04 and the supplemental amendment filed 8/24/04 are acknowledged and entered.

Applicants stated in the communication filed 2/18/05 that the Advisory Action mailed to applicants on 8/6/04 had not been received due to a change of correspondence address. A copy of the Advisory action is hereby attached.

In the communication filing the request for continued examination on 2/18/05, applicants request a telephone interview be arranged before the first Office action is issued after the filing of the RCE.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolf et al. (IDS document: WO 00/15341, 3/23/2000. See the attached English translation).

Claims 10-17 are drawn to methods for producing an improved catalyst comprising the use of crossing or mutation process.

Wolf et al. disclose a method of producing new catalysts. The method comprises providing the catalysts of first generation mixture, restructuring the catalysts using evolutionary principles such as crossing and mutations and through random selections using random generators to produce a second generation of catalysts. See pages 7-9 of the English translation.

New generation of catalysts are tested for their performance. The steps are iterated until such time as no further improvement of the catalyst behavior can be ascertained regarding the activity and/or selectivity for the particular reaction under consideration. See page 9 of the English translation. Also see Tables 2 and 3 for the catalysts of the second and third generations. The mixtures are selected using numerical random generators such as G05DYF, G05DZF and G05CCF of NAG Library. See page 22 of the English translation.

Wolf et al. does not explicitly recite an equation for probability for selecting a new generation of mixed catalyst that is identical in form to the one recited in claim 1 of the instant application.

However, the equations Wolf et al. disclosed on pages 10-15 of the English translation are similar to the equation required in claim 1 and for the same purpose: selecting a new generation of mixed catalyst with high probability. Further, like what is required in the instant claim 1, the selection process by Wolf et al. is performed and the equations are derived using the same numerical random generators: G05DYF, G05DZF and G05CCF of NAG Library. See page 16 of the English translation.

Therefore, it would have been obvious to one of ordinary skill in the art that an equation similar to what is disclosed by Wolf et al. that is also derived from the same numerical random generators that would serve the same purpose of calculating the same probability.

This rejection is reiterated from the prior Office action mailed 5/3/04.

Applicants' arguments filed 8/24/04 and on 11/8/04 are fully considered but not persuasive. Applicants filed a declarations under 37 CFR 1.131, one by each of Dorit Wolf, Manfred Baerns and Olga Gerlack in an attempt to antedate the reference cited by the Office

(Wolf et al. (WO 00/15341, 3/23/2000). Applicants are advised that while the right to rely on the foreign filing extends to overcoming the effects of any intervening references or uses, there are certain restrictions. For example, the one year bar of 35 USC 102(b) dates from the US filing date, not from the foreign filing date. See MPEP 201.13. In the instant case, the US filing date is 7/19/2001 and the reference of Wolf et al. is published on 3/23/2000. Thus, Wolf et al. is a 102(b) type reference, and cannot be antedated by a declaration under 37 CFR 1.131.

Applicants further argue that the reference by Wolf et al. does not teach all the limitations of the claimed invention such as steps (iv) and (v). This is not found persuasive because these steps are directed to selecting a catalyst using a numerical random generator and crossing. These are disclosed by Wolf et al. as set forth in the previous Office action. Wolf et al. disclose a method of producing new catalysts. The method comprises providing the catalysts of first generation mixture, restructuring the catalysts using evolutionary principles such as crossing and mutations and through random selections using random generators to produce a second generation of catalysts. See pages 7-9 of the English translation. New generation of catalysts are tested for their performance. The steps are iterated until such time as no further improvement of the catalyst behavior can be ascertained regarding the activity and/or selectivity for the particular reaction under consideration. See page 9 of the English translation. Also see Tables 2 and 3 for the catalysts of the second and third generations. The mixtures are selected using numerical random generators such as GOSDYF, G05DZF and G05CCF of NAG Library. See page 22 of the English translation.

### ***Conclusion***

No claim is allowed.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

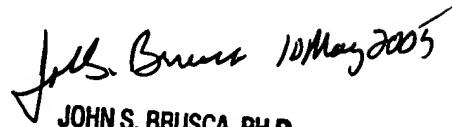
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shubo (Joe) Zhou, whose telephone number is 571-272-0724. The examiner can normally be reached Monday-Friday from 8 A.M. to 4 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Patent Analyst Tina Plunkett whose phone number is (571) 272-0549.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Shubo (Joe) Zhou, Ph.D. 

Patent Examiner

  
JOHN S. BRUSCA, PH.D.  
PRIMARY EXAMINER